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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,486	01/06/2004	Yaron Nahum Mandel		3541

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EXAMINER

LUI, DONNA V

ART UNIT PAPER NUMBER

2629

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,486

Applicant(s)

MANDEL, YARON NAHUM

Examiner

Donna V. Lui

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on January 6, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 2, 9, 11-12 and 19** are rejected under 35 U.S.C. 102(b) as being anticipated by Murmann et al. (Patent Number: 5,612,691).

With respect to **Claim 1**, Murmann teaches an ergonomic keyboard (*See figure 1; column 4, lines 22-24*) tilted forward, downward, away from the user's hands (*column 6, lines 40-43*).

With respect to **Claim 2**, the keyboard in claim 1, Murmann teaches the keyboard is tilted downward from the center to the two sides (*See figure 3; column 6, lines 43-45*).

With respect to **Claims 9 and 19**, the keyboard in claims 1 and 11, Murmann teaches the keyboard further comprising a hand rest (*See figure 1, elements 12 and 13; column 4, lines 34-36*).

With respect to **Claim 11**, Murmann teaches an ergonomic keyboard (*See figure 1; column 4, lines 22-24*) tilted downward from the center to the two sides (*See figure 3; column 6, lines 43-45*).

With respect to **Claim 12**, the keyboard in claim 11, Murmann teaches the keyboard is tilted forward, downward, away from the user's hands (*column 6, lines 40-43*).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 3-5 and 13-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murmann.

With respect to **Claims 3 and 13**, the keyboard in claims 1 and 11, Murmann teaches the keyboard has a QWERTY character key layout with a minor change in the position of the “Y” and “Z” keys (*See figure 1*). Please note reference are German applicants, where the interchanging of the “Z” and “Y” keys are positioned as shown in figure 1 because “Z” is a much more common letter than “Y” in the German language (<http://en.wikipedia.org/wiki/QWERTY>).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have a keyboard using a QWERTY character key layout in the keyboard of Murmann, so as to speed up typing in the English language.

With respect to **Claims 4 and 14**, the keyboard in claims 3 and 13, Murmann teaches

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QWERTY character key layout lies along an imaginary V or U shape (*See figure 2*).

With respect to **Claims 5 and 15**, the keyboard in claims 3 and 13, Murmann teaches QWERTY character key layout is split into two groups lying along the two sides of an imaginary V or U shape (*See figure 2; column 4, lines 23-25*).

5. **Claims 10 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murmann as applied to claims 1 and 11 above, and further in view of Louis (Patent Number: 5,302,040).

With respect to **Claims 10 and 20**, the keyboard in claims 1 and 11, Murman teaches the profile of a keyboard is concave or convex (*See figure 3; note that the profile is concave when viewed such that element 17 is on the left side and element 2 is on the right side, and vice versa for convex*). Murmann does not teach the profile of the keyboard is curved: concave or convex.

Louis teaches the profile of a keyboard is curved: concave or convex (*See figure 4, column 15, lines 1-10; note that the profile is concave when viewed such that element 316 is on the left side and element 306 is on the right side and vice versa for a convex profile*).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have the profile of a keyboard curved, as taught by Louis, to the keyboard of Murmann so as to allow the hands to be positioned in an unstressed manner and to prevent repetitive stress injuries (*Louis: column 15, lines 1-10*).

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6. **Claims 6-8 and 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murmann as applied to claims 1 and 11 above, and further in view of Romberg (Patent Number 5,003,301).

With respect to **Claims 6 and 16**, the keyboard in claims 1 and 11, Murmann does not teach the keyboard further comprising an upper row of characters comprising from left to right P Y F G C R L, a middle row of characters comprising from left to right A O E U I D H T N S, a lower row of characters comprising from left to right Q J K X B M W V Z, and the keyboard further comprising other keys.

Romberg teaches the keyboard further comprising an upper row of characters comprising from left to right P Y F G C R L, a middle row of characters comprising from left to right A O E U I D H T N S, a lower row of characters comprising from left to right Q J K X B M W V Z, and the keyboard further comprising other keys (*See figure 4B*).

It would have been obvious for a person of ordinary skill in the art at the time invention was made to use a keyboard comprising an upper row of characters comprising from left to right P Y F G C R L, a middle row of characters comprising from left to right A O E U I D H T N S, a lower row of characters comprising from left to right Q J K X B M W V Z, and the keyboard further comprising other keys, as taught by Romberg, to the keyboard of Murmann, so as to provide an alternative keyboard layout known as the Dvorak key layout providing the advantages of ease of use due to type letters alternating between hands, for maximum speed and efficiency since the most common letters and digraphs should be the easiest type.

With respect to **Claims 7 and 17**, the keyboard in claims 6 and 16, Murmann teaches the rows of characters lie along an imaginary V or U shape (*See figure 2*).

With respect to **Claims 8 and 18**, the keyboard in claims 6 and 16, Murmann does not teach the rows of characters are split into two groups lying along the two sides of an imaginary V or U shape, the left side of the upper row comprising from left to right P Y, the right side of the upper row comprising from left to right F G C R L, the left side of the middle row comprising from left to right A O E U I, the right side of the middle row comprising from left to right D H T N S, the left side of the lower row comprising from left to right Q J K X, and the right side of the lower row comprising from left to right B M W V Z.

Romberg teaches the keyboard further comprising an upper row of characters comprising from left to right P Y F G C R L, a middle row of characters comprising from left to right A O E U I D H T N S, a lower row of characters comprising from left to right Q J K X B M W V Z, and the keyboard further comprising other keys (*See figure 4B*).

Replacing the QWERTY keys of Murmann with the keys of Romberg (*figure 4B*) results in the rows of characters are split into two groups lying along the two sides of an imaginary V or U shape, the left side of the upper row comprising from left to right P Y, the right side of the upper row comprising from left to right F G C R L, the left side of the middle row comprising from left to right A O E U I, the right side of the middle row comprising from left to right D H T N S, the left side of the lower row comprising from left to right Q J K X, and the right side of the lower row comprising from left to right B M W V Z.

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It would have been obvious for a person of ordinary skill in the art at the time invention was made to use a keyboard comprising an upper row of characters comprising from left to right P Y F G C R L, a middle row of characters comprising from left to right A O E U I D H T N S, a lower row of characters comprising from left to right Q J K X B M W V Z, and the keyboard further comprising other keys, as taught by Romberg, to the keyboard of Murmann, so as to provide an alternative keyboard layout known as the Dvorak key layout providing the advantages of ease of use due to type letters alternating between hands, for maximum speed and efficiency since the most common letters and digraphs should be the easiest type.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna V. Lui whose telephone number is (571) 272-4920. The examiner can normally be reached on Monday through Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Donna V Lui
Examiner
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AMR A. AWAD
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", with a long, sweeping horizontal stroke extending to the right.